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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,782	11/18/2002	Fu-Chang Lin	DTCP0001USA	2416
27765	7590	08/10/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION			BAKER, CHARLOTTE M	
P.O. BOX 506			ART UNIT	
MERRIFIELD, VA 22116			PAPER NUMBER	

2625

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/065,782	<b>Applicant(s)</b> LIN, FU-CHANG	
	<b>Examiner</b> Charlotte M. Baker	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Regarding the objection to the drawings, the objection is hereby withdrawn due to cancellation of claim 5 and replacement sheets.
2. Regarding objections to claims 1, 4 and 6-9, objections are hereby withdrawn due to amendment to claim 1.
3. Applicant's arguments filed 07/10/2006 have been fully considered but they are not persuasive. Regarding Applicant's remarks regarding the teaching of Sabbagh et al. and the reference failing to teach *without utilizing the upper layer*, Examiner respectfully traverses. Attention is drawn to Sabbagh et al. (Fig. 3, path 320 and col. 3, ln. 39-51). It is clear that the GDI is bypassed by using path 320 and therefore, the upper layer is not utilized. According to Applicant's own Abstract and Fig. 2 (upper layer 15 and GDI 16), the upper layer is used for controlling a graphical device interface. Since Sabbagh et al. teach path 320, the upper layer is not utilized according to Applicant's own definition of the upper layer.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakenaka et al. (6,075,949) in view of admitted prior art and further in view of Sabbagh et al. (6,814,510).

**Regarding claim 1:** Hatakenaka et al. disclose providing a printer manager for generating the print data (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8), the printer manager comprising a device-dependent converter (Fig. 3, signal processing unit 3) for converting input data into device-dependent output data (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8) (col. 4, ln. 3-20); providing encoded data (encoding/decoding unit 4 in Fig. 3) to the print manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8); the printer manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8) decoding the encoded data (Fig. 3, encoding/decoding unit 4) to generate raw data (col. 5, ln. 39-43), and utilizing the converter (Fig. 3, signal processing unit 3) to convert the raw data into the device-dependent print data (col. 4, ln. 3-20).

Hatakenaka et al. fail to specifically address an operating system with upper and lower layers and providing the print data to the lower layer.

Admitted prior art discloses an operating system (Fig. 1, OS12) having an upper layer (Fig. 1, upper layer 15) for controlling a graphical device interface (Fig. 1, GDI 16), and a lower layer (Fig. 1, lower layer 18) for controlling input/output activities (par. 4); providing the device-dependent print data to the lower layer (Fig. 1, lower layer 18); and the lower layer (Fig. 1, lower layer 18) of the operating system (Fig. 1, OS12) outputting the device-dependent print data to the printer (Fig. 1, printer 30)(par. 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the teaching of the admitted prior art in order to print the data received from the computer system as taught by admitted prior art (par. 4).

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Hatakenaka et al. fail to specifically address without utilizing the upper layer.

Sabbagh et al. disclose without utilizing the upper layer (Fig. 3, path 320 and col. 3, ln. 39-51).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the teaching of Sabbagh et al. in order to directly create a spool file without using the GDI (col. 3, ln. 49-51).

**Regarding claim 4:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1. Hatakenaka et al. further disclose a user interface (Fig. 3, control unit 11) for configuring the print manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8), wherein the converter (Fig. 3, signal processing unit 3) converts the raw data into the device-dependent print data (col. 4, ln. 3-20) according to configuration information of the user interface (Fig. 3, control unit 11 and col. 5, ln. 3-).

**Regarding claim 5:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1. **NOTE:** since there is no support for a printer with a decompressor, Examiner is interpreting this as a typographical error and reading the claim as the printer manager with a decompressor. Hatakenaka et al. further disclose wherein the printer manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8) further comprises a compressor (Fig. 3, encoding/decoding unit 4, encoding portion) for compressing the device-dependent print data (col. 4, ln. 3-20), and the printer comprises a decompressor (Fig. 3, encoding/decoding unit 4, decoding portion) for decompressing the compressed device-dependent print data (col. 4, ln. 3-20).

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6. Claims 2-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. and further in view of Shiohara (6,618,553).

**Regarding claim 2:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address the converter which converts raw data into gray-level image data and converts the gray-level image data into print data.

Shiohara discloses wherein the converter (Fig. 11, rasterizer 221) converts the raw data into gray-level image data and converts the gray-level image data into the device-dependent print data (col. 10, ln. 6-16).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the converter to allow the processing of monochrome image data as taught by Shiohara (col. 10, ln. 6-12).

**Regarding claim 3:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address the converter which converts raw data into cyan-magenta-yellow-black (CMYK) image data and converts the CMYK image data into print data.

Shiohara discloses wherein the converter (Fig. 11, rasterizer 221) converts raw data into cyan-magenta-yellow-black (CMYK) image data and converts the CMYK image data into device-dependent print data (Fig. 11 and col. 10, ln. 18-22).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the converter to relate the data to print colors as taught by Shiohara (col. 10, ln. 18-22).

**Regarding claim 6:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in JPEG format.

Shiohara discloses wherein the encoded data is stored in a joint photographic experts group (JPEG) format (col. 4, ln. 16-34).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to store the encoded data in JPEG format in order to apply the normal standard of compression as taught by Shiohara (col. 1, ln. 22-27).

7. Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. and further in view of Nakajima et al. (US 2002/0135687 A1).

**Regarding claim 7:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in GIF format.

Nakajima et al. disclose wherein the encoded data is stored in a graphics interchange format (GIF) (par. 58).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention in order to employ another storage format other than JPEG as taught by Nakajima et al. (par. 58).

**Regarding claim 8:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in BMP format.

Nakajima et al. disclose wherein the encoded data is stored in a bitmap (BMP)(par. 58).

**Regarding claim 9:** Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in TIFF format.

Nakajima et al. disclose wherein the encoded data is stored in a tag image file format (TIFF)(par. 58).

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37



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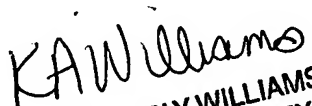
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
CMB

  
KIMBERLY WILLIAMS  
SUPERVISORY PATENT EXAMINER